

Claims

1. (Currently amended) A weather resistant poly(vinyl chloride) compound, comprising:
 - (a) poly(vinyl chloride) and
 - (b) at least about 2 weight parts of essentially pure chalk-like calcium carbonate per 100 weight parts of poly(vinyl chloride), the calcium carbonate having a particle size less than about 10 μm , wherein the essentially pure chalk-like calcium carbonate serves as a scavenger for free hydrochloric acid generated in poly(vinyl chloride) upon exposure to visible and ultraviolet light.
2. (Original) The compound of claim 1, wherein the essentially pure calcium carbonate particle size is less than about 6 μm .
3. (Original) The compound of claim 1, wherein the calcium carbonate is Jamaican calcium carbonate.
4. (Original) The compound of claim 1, wherein the essentially pure calcium carbonate is present in an amount from about 2 to about 50 weight parts.
5. (Original) The compound of claim 1, wherein the essentially pure calcium carbonate particles are surface treated with a stearate.
6. (Currently amended) The compound of claim 1, further comprising:
 - (c) at least about 0.5 weight parts of organotin heat stabilizer based on 100 weight parts of poly(vinyl chloride), wherein the organotin stabilizer comprises substituted mono-alkyl or dialkyl or trialkyl esters of tin with mono-, di-, or tri-substituted active mercapto groups or carboxylate groups.
7. (Original) The compound of claim 6, further comprising:
 - (d) at least about 0.1 weight parts of zinc dialkyl ester scavenger per 100 weight parts of PVC resin, provided the equivalents of active mercapto groups or carboxylate groups in the organotin are equal to or exceed the equivalents of dialkyl ester groups in the zinc dialkyl ester.
8. (Original) The compound of claim 1, wherein the poly(vinyl chloride) comprises is a homopolymer or a copolymer of copolymerized vinyl chloride monomer with less than 5% by weight copolymerized other unsaturated co-monomer.
9. (Currently Amended) A compound comprising a mixture of polymers, wherein one polymer is the compound of ~~any of Claims 1-8~~ Claim 1 and wherein a second polymer is a poly(acrylic) polymer.
10. (Original) The compound of Claim 9, wherein the poly(acrylic) polymer is a poly(meth)acrylate present in the mixture in an amount from about 25 to about 75 weight percent of the mixture.

11. (Currently Amended) A process for producing a poly(vinyl chloride) compound, the process comprising:

(a) providing an essentially pure calcium carbonate having a particle size less than about 10 μm ; and

(b) mixing the calcium carbonate with poly(vinyl chloride) in an amount of at least about 2 weight parts calcium carbonate per 100 weight parts of poly(vinyl chloride), wherein the essentially pure chalk-like calcium carbonate serves as a scavenger for free hydrochloric acid generated in poly(vinyl chloride) upon exposure to visible and ultraviolet light.

12. (Currently Amended) A poly(vinyl chloride) article comprising the compound of ~~any of Claims 1-9~~ Claim 1.

13. (New) The article of Claim 12, wherein the essentially pure calcium carbonate particle size is less than about 6 μm .

14. (New) The article of Claim 12, wherein the calcium carbonate is Jamaican calcium carbonate.

15. (New) The article of Claim 12, wherein the essentially pure calcium carbonate is present in an amount from about 2 to about 50 weight parts and is surface treated with a stearate.

16. (New) The article of claim 12, wherein the compound further comprises:

(c) at least about 0.5 weight parts of organotin heat stabilizer based on 100 weight parts of poly(vinyl chloride), wherein the organotin stabilizer comprises substituted mono-alkyl or dialkyl or trialkyl esters of tin with mono-, di-, or tri-substituted active mercapto groups or carboxylate groups.

17. (New) The article of Claim 16, wherein the compound further comprises:

(d) at least about 0.1 weight parts of zinc dialkyl ester scavenger per 100 weight parts of PVC resin, provided the equivalents of active mercapto groups or carboxylate groups in the organotin are equal to or exceed the equivalents of dialkyl ester groups in the zinc dialkyl ester.

18. (New) The article of Claim 12, wherein the poly(vinyl chloride) comprises is a homopolymer or a copolymer of copolymerized vinyl chloride monomer with less than 5% by weight copolymerized other unsaturated co-monomer.

19. (New) The article of Claim 12, where the compound comprises a mixture of polymers, wherein one polymer is the compound of Claim 1 and wherein a second polymer is a poly(acrylic) polymer.

20. (New) The article of Claim 12, wherein the compound comprises a mixture of polymers, wherein one polymer is the compound of Claim 7 and wherein a second polymer is a poly(acrylic) polymer.

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